

1. A fiber reinforced core panel adapted for use with a hardenable resin and having length greater than its width, said core panel comprising a series of adjacent blocks of low density cellular material and arranged to form an elongated strip, a first layer of fibrous rovings continuously and helically surrounding said strip along the length thereof, a second layer of fibrous rovings continuously and helically surrounding said first layer on said strip along the length thereof, said rovings in said second layer extending helically in an opposite direction and crossing said rovings in said first layer, and said blocks are separated by reinforcing members which extend between adjacent said blocks and between said layers.
2. A core panel as defined in claim 1 wherein said reinforcing members comprise planar webs.
3. A core panel as defined in claim 1 wherein said reinforcing members comprise layers of fibrous rovings extending helically around said blocks.
4. A core panel as defined in claim 1 and including generally parallel continuous fibrous rovings extending longitudinally along said strip adjacent a layer of helically extending rovings.
5. A core panel as defined in claim 4 wherein said longitudinally extending rovings are disposed adjacent corners of said blocks.
6. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips each having a series of blocks of low density cellular material, at least one layer of fibrous rovings extending helically around each of said blocks, At least one layer of fibrous rovings continuously and helically surrounding each said strip along the length thereof, and said elongated strips and said helically surrounding rovings are connected together to form a unitized said core panel with said

rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

7. A core panel as defined in claim 6 and including generally parallel continuous fibrous rovings extending longitudinally along each said strip adjacent a layer of helically extending rovings.

8. A core panel as defined in claim 6 and including generally parallel continuous fibrous rovings extending perpendicular to said core surfaces and adjacent and layer of said rovings extending helically around said blocks.

9. A core panel as described in claim 6 and including fibrous rovings extending adjacent said core surfaces and parallel to said strips, and said rovings have a depth into said foam blocks greater than their width.

10. A core panel as defined in claim 6 and including generally parallel continuous fibrous rovings extending longitudinally along said strip adjacent a layer of helically extending rovings.

11. A core panel as defined in claim 10 wherein said longitudinally extending rovings extend adjacent corners of said blocks.

12. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated adjacent strips of low density foam plastics material, each of said strips having opposite faces attached to corresponding facer sheets extending between said core surfaces of said core panel, a first layer of fibrous rovings continuously and helically surrounding at least two adjacent said strips along the length thereof, a second layer of fibrous rovings continuously and helically surrounding said first layer of rovings along the length thereof, said rovings in said second layer

crossing said rovings in said first layer, said elongated strips and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

13. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated adjacent strips of low density cellular material, a first layer of fibrous rovings continuously and helically surrounding alternating or spaced said strips along the length thereof, a second layer of fibrous rovings continuously and helically surrounding said first layer on each of said alternating or spaced said strips along the length thereof with said rovings in said second layer crossing said rovings in said first layer, said elongated strips and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces on alternating or spaced said strips for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

14. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips of low density cellular material, at least one layer of fibrous rovings continuously and helically surrounding each of said strips along the length thereof, said elongated strips and said helically surrounding rovings being connected together, with adjacent said strips separated by spacer strips extending between said surfaces of said core panel, and forming a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

15. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated tubes, at least one layer of fibrous rovings continuously and helically surrounding each of said tubes along the length thereof, said elongated tubes and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

16. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips each comprising blocks of low density cellular material having at least one layer of fibrous rovings helically extending around each of said blocks, and said elongated strips being connected together to form a unitized said core panel with end portions of said rovings extending between said surfaces of said core panel for connecting to the skins, and said core panel being adapted to be moved as a preform unit to a molding process where the resin is hardened.

17. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated serpentine strips of low density cellular material, at least one layer of fibrous rovings continuously and helically surrounding each of said strips along the length thereof, said elongated strips and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

18. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of longitudinally spaced elongated strips of low density cellular material and defining spaces between opposing ends of said strips, at least one layer of fibrous rovings continuously and helically surrounding each of said strips along the length thereof and the spaces therebetween, said elongated strips being connected by said helically surrounding rovings and folded to form a unitized said core panel with said rovings extending over said core surfaces and said ends of said strips and adapted to be moved to a molding process where the resin is hardened.

19. A core panel as defined in claim 18 and including longitudinally spaced internal transverse reinforcing members extending laterally within said strips and between said core surfaces.

20. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips of low density cellular material, said strips having portions of reduced thickness, generally parallel continuous fibrous rovings extending longitudinally along said strips and over said portions, at least one layer of fibrous rovings extending continuously and helically around each of said strips and said longitudinally extending rovings along the length of said strips, said elongated strips and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

21. A core panel as defined in claim 20 and including longitudinally spaced internal transverse reinforcing members extending laterally within each said strip and to said core surfaces.

22. A fiber reinforced core panel of annular configuration and adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a continuous elongated strip of low density cellular material, at least one layer of fibrous rovings continuously and helically surrounding said strip along the length thereof, said strip extending in helical path to form said annular configuration, adjacent portions of said elongated strip and said helically surrounding rovings being connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

23. A core panel as defined in claim 22 and including generally parallel continuous fibrous rovings extending longitudinally along said strip adjacent a layer of helically surrounding rovings.

24. A core panel as defined in claim 22 and including longitudinally spaced internal transverse reinforcing members extending laterally within said strip and to said core surfaces.

25. A core panel as defined in claim 22 and including at least one internal strip of fibrous material extending longitudinally within said strip generally parallel to said opposite core surfaces.

26. A core panel as defined in claim 22 and including an internal resin distribution groove extending within said strip and spaced inwardly from said opposite core surfaces and intersecting said rovings between adjacent portions of said strip for supplying resin to said core surfaces through said rovings.

27. A core panel as defined in claim 22 wherein said rovings are porous for receiving a hardenable adhesive resin.
28. A core panel as defined in claim 22 wherein said rovings include a heat activated resin.
29. A core panel as defined in claim 28 wherein said layer of helically surrounding rovings includes additional porous rovings adapted for bonding to adhesive reinforced scrim.
30. A core panel as defined in claim 22 and including a second said core panel overlying and adjacent the first said core panel.
31. A core panel as defined in claim 22 and including a plurality of rows of stitched rovings forming reinforcing struts extending between said opposite core surfaces.
32. A core panel as defined in claim 22 wherein said strip of cellular material has generally a triangular cross-sectional configuration.
33. A core panel as defined in claim 22 wherein said strip of material has generally a trapezoidal cross-sectional configuration.
34. A core panel as defined in claim 22 and including a resin barrier film adjacent at least one of said core surfaces.
35. A reinforced composite panel comprising a core panel of low density cellular material and having opposite core surfaces, fibrous reinforcing members extending between said core surfaces, fibrous skins adjacent said core surfaces of said core panel, a hardened thermoset resin extending through said fibrous reinforcing members and through an inner portion of at

least one of said skins, and a thermoplastic resin extending through an outer portion of said one skin.